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MERRITT LYNDON FERNALD 1873–1950

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MERRITT LYNDON FERNALD was born October 5, 1873, at Orono, Maine, where his father, Dr. Merritt Caldwell Fernald—later to become the first and third president of the Maine State College of Agriculture and Mechanic Arts (now the University of Maine)—was head of the Department of Mathematics and Physics. His mother was Mary Lovejoy (Heywood) Fernald, and he had three brothers and one sister.

After a boyhood of hard work, tending the garden and the furnace, shingling the roof, and walking a mile and a half to school, he graduated from the Orono High School, and entered in 1890 as a freshman at the State College. Soon after this appeared what seems to be the first of his long series of botanical publications, a modest little note on two *Carices* (*C. deflexa*, var. *Deanei*, and *C. chordorhiza*) in the *Bulletin of the Torrey Botanical Club*, xvii (1890), 261, followed in xviii (1891), 120–124, by a list of *Plants of special interest collected at Orono, Maine*. In this he states that he had collected there from May to August, 1890, and mentions other collections in 1889, e. g., at Cape Elizabeth, Me. Certain other plants are cited as having grown in particular localities "ever since I can remember." He names in this list nearly seventy species, many new to the state, and says that about 81 species of *Carex* are found in Maine. (Not so bad for a boy of seventeen!)

Perhaps as a result of these articles and also because of a letter[1]

[1] The correspondence mentioned between the two Fernalds and Sereno Watson is preserved at the Gray Herbarium.

which he wrote to Sereno Watson on January 30, 1891 (misdated 1890) about a *Juncus* (*J. bufonius*) which he thought was not adequately described in *Gray's Manual*, Watson, then Curator of the Gray Herbarium, wrote to him on February 4, 1891: "I have been much pleased with the intelligent interest that you have shown in the plants of your region. I have no idea what your plans or expectations for the future may be, nor even of your age or how far advanced you may be in your education. But at a venture I would say that if a career as a botanist has attractions for you there is an opportunity open here for a young man who is willing to begin at the bottom and work his way upward . . . Opportunity will be given for study and advancement and compensation sufficient at least for support. If such a position has any attraction for you I shall be glad to hear from [you] in reply." On February 7, President Fernald, who apparently had had some acquaintance with Watson "at Miss Parker's," expressed his surprise at the offer, since the boy was but seventeen. He had graduated, his father wrote, from the Orono High School, with two years of Latin and one of French, and "before entering this college he was allowed one year which he devoted quite largely to Botany in the field." His father wished the boy to have a well-rounded education, and with this wish Watson's reply agreed, emphasizing the importance of a reading knowledge of Latin, French, German, and some Greek, and suggesting that young Fernald might carry two academic courses a year and work half time in the herbarium, especially in distributing new accessions. On February 7, young Merritt wrote to Watson that the position outlined certainly did attract him, for "I think the one thing I was made for was a botanist, as from early childhood my inclinations have been in that line." Accordingly on March 6, 1891, President Fernald brought his boy down to Cambridge, and ensconced him as an assistant at the Gray Herbarium, his connection with which was destined to continue unbroken for nearly sixty busy years.

In April, 1892, Fernald completed the second edition of the *Portland Catalogue of Maine Plants*, a bare list with a brief preface over his own name. In two supplements (1895 and 1897) he showed more developed critical judgment and furnished more exact citation of his own and others' collections. Meantime, in

the autumn of 1891, he had entered the Lawrence Scientific School, in which he spent the period from 1891 to 1897, when he graduated as S. B. *magna cum laude*. (His later close associate, C. A. Weatherby, became a Bachelor of Arts the same year.)

In a class report Fernald describes himself a a "mere grind," held back by shyness from social activities, and hence not a "club-man," save for membership in the Maine Club, the Harvard Society of Natural History (where the writer first met him in 1898), and the Harvard Folklore Society. On September 16, 1891, moreover, President Fernald, in writing Sereno Watson, speaks of his son's diffidence, but thinks that it will "wear away as he comes to feel more and more at home."

His academic progress was gradual, as assistant from 1891–1902, instructor from 1902–1905, assistant professor of botany from 1905–1915, and, from 1915–1947, Fisher Professor of Natural History (the chair once occupied by Asa Gray and George L. Goodale), becoming in 1947 Fisher Professor Emeritus. In addition, from 1935–1937 he was Curator, and from 1937–1947 Director of the Gray Herbarium. With W. L. W. Field, Ralph Hoffman, and Hollis Webster, he helped to establish the Alstead (N. H.) School of Natural History, teaching in it during the summers from 1899 to 1901. In 1899 he became associate editor of RHODORA, and in 1928, succeeding B. L. Robinson, its editor-in-chief, and under his vigorous management the scope and the bulk of the journal was strikingly increased.

Young Fernald came to Harvard with a natural bent toward botanical study which he had followed since childhood, and when fifty years out of college he reaffirmed his belief that natural scientists are born, not made "in the laboratory, the place which usually deadens such interest." Though as he matured in experience and broadened in his outlook he came to respect and emphasize more and more the historical aspects of systematic botany, yet he often expressed rather scornful feelings toward those "closet botanists," who, through physical weakness or mere indolence, had no ambition to familiarize themselves with plants in their natural setting in the field. "Botanists who don't know plants," he liked to call such.

His own professional aims Fernald well expressed in his class report for 1922: "I am attempting to attain and record as exact

an understanding as possible of the natural flora of this region [Hudson Strait to Long Island and the Great Lakes] and the geological and geographic conditions of the past under which the plants (and with them the animals) have reached their present habitats; and, consequently, I am repeatedly forced to explain to the man in the street, my failure to enter a money-making profession . . . I belong to that almost extinct species, the old-fashioned systematic botanist." This phytogeographic interest largely shaped the course of his field activities. Starting at Orono, expanding to such parts of Maine as he could reach before the days of automobiles, including especially Mt. Bigelow (August, 1896, with J. F. Collins and Professor W. C. Strong of Bates College), Mt. Katahdin, and the Saint John and Aroostook valleys, he expanded his scope to include the areas about the Gulf of St. Lawrence—Bic, Gaspé, Newfoundland, southern Labrador, and the Magdalen Islands—and Nova Scotia. Many were the new species and noteworthy extensions of range detected on these expeditions, but of even greater significance seemed the theories of plant-distribution arising as generalizations from them, whether concerned with the extension of coastal-plain plants from New Jersey to Cape Cod, south-western Nova Scotia, and the Avalon Peninsula, or the notable persistence of supposed relic species of a preglacial period in and about unglaciated areas from the Gulf of St. Lawrence westward, or the control of plants by the chemical constituents of their soils. It is significant of this interest that, when I asked him, a few weeks before his death, to what studies he would apply himself when the new edition of *Gray's Manual* was completed, he replied that he had in prospect a large work on plant-distribution, collecting, revising, and integrating his various scattered articles on coastal, alpine, and other groups.

Fernald's summer expeditions, carefully planned and accompanied by both expert and amateur assistants, are remembered by those who were fortunate enough to participate in them as physically strenuous and sometimes excitingly adventurous, and it comes as a surprise to one who has seen him battling with the scrub on a pathless Gaspesian mountain or enduring the hardships of the northern Newfoundland coast to read in his fifty-year report that from early childhood a weak heart was always his

handicap. At Harvard the college physician had cautioned him against strenuous effort. "However," writes Fernald, "when I invited him to join me on a camping trip in Northern Maine, I spent my time exploring the mountains while he lay all day in the hammock. Shortly after that he succumbed." Later, when heart trouble prevented further mountain explorations in the northeast, he could find in tidewater Virginia enough of hard work and long hours to test any companions save the most seasoned, and enough thrilling experiences to show that the field was far from exhausted. The journals of his various trips, recorded in the pages of RHODORA, indicate that his keen discrimination, his feeling for the human interest in botanical adventure, and his ever playful sense of humor, might have produced some very readable books of travel, had he had the time to give to such writing.

Fernald's powers of observation were keen and quick, until, in his later years, cataracts obscured his vision, but, though slowing up his rate of work, did not shorten his hours of labor. With a remarkable memory for the normal characters and the habitual ranges of thousands of species, he was prompt to detect any variation, and clear and accurate in describing it. It was not enough, moreover, to describe a new plant, but it must be carefully differentiated from its nearest congeners; consequently his experience in "keying up" new species stood him in good stead in preparing the full keys in the eighth edition of *Gray's Manual.*

In 1908 he collaborated with Professor B. L. Robinson in writing the seventh edition of the *Manual;* in 1943 with Professor A. C. Kinsey he published *Edible Wild Plants of Eastern North America;* and, finally, in the summer of 1950, after an interval of forty-two years, appeared the long-expected and monumental eighth edition of the *Manual,* in large part his own work during that period. It is a cause for thankfulness that his sudden death (September 22, 1950) did not occur until after this *magnum opus* had been safely published. Beside these books he had written over seven hundred and fifty papers and memoirs, many of them of considerable length.

Though Fernald belonged to no social club (save the Harvard Faculty Club), he was connected with many professional societies the New England Botanical Club (president 1911–1914);

the American Society of Plant Taxonomists (president 1938); the Botanical Society of America (vice-president 1939, president 1942); the American Association for the Advancement of Science (vice-president 1941); the Societas Phytogeographica Suecana; the Linnaean Society (London); the Botanical Society and Exchange Club of the British Isles; and the Torrey Botanical Club. He was a fellow of the American Academy of Arts and Sciences; the American Philosophical Society; a member of the National Academy of Sciences; a corresponding member of the Academy of Natural Sciences (Philadelphia), the Société Linnéane de Lyon, and of the Norske Videnskaps Academi; a member of the International Committee on Botanical Nomenclature (1930–1935) and the Association of American Geographers, and various other organizations. He was awarded the honorary degree of D. C. L. by Acadia University (1933) and that of D. Sc. by the University of Montreal (1938); also the Leidy Gold Medal of the Academy of Natural Sciences at Philadelphia (1940), a Gold Medal from the Massachusetts Horticultural Society (1944), and the Marie-Victorin Medal, given by the Foundation Marie-Victorin for outstanding services to botany in Canada (1949).

In 1907 he married Miss Margaret Howard Grant of Providence, R. I., who, with one daughter Katherine (Mrs. H. G. Lohnes), one son, Henry Grant Fernald, and six grandchildren, survives him. A second daughter, Mary, died in 1927.

What Fernald's friends and even casual acquaintances will remember about him is not, however, his official positions and honors nor even the bulk of works which he produced, but the unforgettable personality of the man. Tireless in labor, vigorous in expression, fearless and outspoken in controversy or criticism—sometimes embarrassingly so—, he yet had a real appreciation and respect for honest work of others and the power, by suggestion and commendation, of stimulating in them—especially in students and those not too set in their own ways and conceits—an enthusiasm for research and discovery. Though he never wore his heart upon his sleeve he had a deep respect for sincere moral character, and though scientists are sometimes accused of impersonal stolidity, of all his sayings I like best to remember that once, in reply to a thoughtless youthful remark of mine that a certain investigation, even if carefully pursued, could have only

a sentimental value, he said, with a good deal of feeling, "This world would be a pretty poor place if there were no sentiment in it."

FERNALD AS A TEACHER

JOHN M. FOGG, JR.

IT was through the medium of his writings that I first became acquainted with Merritt Lyndon Fernald. As a beginning student in Systematic Botany, I early discovered the bound set of RHODORA in our Departmental Library and, starting with Volume I, set myself the task of reading every number of this Journal and preparing my own card index of all new species, varieties and combinations, with cross references to significant range extensions, local floras and items relating to plant geography. It was in this manner that I formed a high and lasting regard for Fernald's botanical scholarship, his careful and precise use of English, and, above all, his intimate and critical knowledge of the flora of Eastern Temperate North America.

As I read his paper on "The Plants of Wineland the Good," studied his revisions of difficult taxonomic groups, devoured his discussions of glaciation, Post-Pleistocene land bridges and nunataks, and, above all, avidly consumed his accounts of field work in Nova Scotia, the Gaspé Peninsula and Newfoundland, I conceived an intense desire to meet the author and especially to have the privilege of accompanying him on a botanical expedition. The realization of both these wishes I owe to my good friend, Mr. Bayard Long, who somehow succeeded in persuading Fernald to invite a young botanist at the University of Pennsylvania to join Long and him on a brief field trip to Newfoundland late in the summer of 1926, following the Fourth International Botanical Congress at Ithaca.

It was on this expedition, the first of many, that I came more fully to appreciate the dynamic qualities which made Fernald the greatest student of our eastern flora since Asa Gray. Our assignment on four short weeks in the field was divided between exploring the country around Lark Harbor on the west coast of Newfoundland and collecting on the granitic barrens of the south coast near Burgeo. Those favored students who have been with